Claim Amendments:

1 (currently amended): A method for modulating a binary bit stream in a composite video signal, the composite video signal includes luminance, chrominance and audio components, the method comprising: obtaining sync pulse information from the composite video signal; modulating the binary bit stream according to a modified orthogonal frequency division modulation (OFDM) ~~OFDM~~ technique, the modulating comprising: generating in-phase and quadrature symbol frames from the binary bit stream; and combining the in-phase and quadrature symbol frames streams according to OFDM modulation techniques; converting the combined symbol frames into an analog signal; and combining the analog signal with the composite video signal according to the obtained sync pulse information.

2 (original): The method of claim 1, wherein combining comprises: translating the analog signal to be centered at an intermediate frequency above the baseband of the composite video signal; and amplifying the translated analog signal.

3 (original): The method of claim 2, wherein the intermediate frequency is at least 2 MHz.

4 (original): The method of claim 2, wherein the intermediate frequency is less than 3 MHz.

5 (original): The method of claim 1, wherein modulating further comprises: encoding the binary bit stream with forward error correction code; and preceding the generated in-phase and quadrature symbol streams according to comb filtering effects.

6 (original): The method of claim 5, wherein precoding comprises: the assembly of inphase and quadrature symbol frames according to OFDM modulation techniues.

7 (original): The method of claim 1, wherein the composite video signal is a NTSC video signal.

8 (original): An apparatus for modulating a binary bit stream in a composite video signal, the composite video signal includes luminance, chrominance and audio components, the apparatus comprising: a sync pulse stripper configured to obtain sync pulse information from the composite video signal; a modulator configured to modulate the binary bit stream according to quadrature amplitude modulation, the modulator comprising: a symbol mapper configured to generate in-phase and quadrature symbol streams; and a symbol stream combiner configure to combine the in-phase and quadrature symbol streams according to quadrature amplitude modulation techniques; a

digital to analog converter configured to convert the combined symbol streams into an analog signal; and a combiner configured to combine the analog signal with the composite video signal according to the obtained sync pulse information.

9 (original): The apparatus of claim 8, wherein the combiner comprises: a translator configured to translate the analog signal to be centered at an intermediate frequency above the baseband of the composite video signal; and an amplifier configured to amplifying the translated analog signal.

10 (original): The apparatus of claim 9, wherein the intermediate frequency is at least 2 MHz.

11 (original): The apparatus of claim 9, wherein the intermediate frequency is less than 3 MHz.

12 (original): The apparatus of claim 8, wherein modulator further comprises: a precoder configured to precode the generated in-phase and quadrature symbol streams according to comb filtering effects.

13 (original): The apparatus of claim 12, wherein the precoder comprises: a filter configured to filter the generated in-phase and quadrature symbol streams according to Nyquist square root filtering techniques.

14 (original): The apparatus of claim 8, wherein the composite video signal is a NTSC video signal.

15 (currently amended): A method for demodulating a binary bit stream modulated in a composite video signal as a gated and windowed orthogonal frequency division modulation (OFDM) ~~OFDM~~ offset carrier modulated signal, the composite video signal includes luminance, chrominance and audio components, the method comprising: converting the composite video signal modulated with the carrier centered OFDM modulated signal into a digital signal; splitting the digital signal into synch pulses and a quadrature amplitude modulated data stream; separating the offset OFDM modulated data stream into in -phase and quadrature symbol frames streams according to the synch pulses; and combining the in-phase and quadrature demodulated symbol frames into a single binary data stream.

16 (original):The method of claim 15, wherein splitting comprises: suppressing the composite video signal for attaining the offset OFDM modulated data stream; suppressing the offset OFDM modulated data stream for attaining the composite video signal; and extracting the synch pulses from the attained composite video signal.

17 (original): The method of claim 15, wherein separating comprises: frequency translating the offset OFDM modulated data frames to the baseband of the composite video signal.

18 (original): The method of claim 15, further comprising: decoding the single binary data stream according to forward error correction coding included in the binary data stream.

19 (original): The method of claim 15, wherein the composite video signal is a NTSC video signal.

20 (currently amended): A receiver for demodulating a binary bit stream modulated in a composite video signal as an offset orthogonal frequency division modulation (OFDM) ~~OFDM~~ modulated signal, the composite video signal includes luminance, chrominance and audio components, the receiver comprising: an analog to digital converter configured to convert the composite video signal modulated with the offset OFDM modulated signal into a digital signal; a splitter configured to split the digital signal into synch pulses and an I-Q OFDM modulated data stream; a separator configured to separate the offset OFDM modulated data frame into in -phase and quadrature symbol frames according to the synch pulses; and a combiner configured to combine the in-phase and quadrature data frames into a single binary data stream.

21 (original): The receiver of claim 20, wherein the splitter comprises: a first signal suppressor configured to suppress the composite video signal for attaining the I-Q OFDM modulated data stream; a second signal suppressor configured to suppress the I-Q OFDM modulated data stream for attaining the composite video signal; and an extractor configured to extract the synch pulses from the attained composite video signal.

22 (original): The receiver of claim 20, wherein the separator comprises: a translator configured to frequency translate the I-Q OFDM modulated data frame to the baseband of the composite video signal.

23 (original): The receiver of claim 20, further comprising: a decoder configured to decode the single binary data stream according to forward error correction coding included in the binary data stream.

24 (original): The receiver of claim 20, wherein the composite video signal is a NTSC video signal.